

Overview

Models

Compaq NC7770 PCI-X Gigabit Server Adapter	244948-B21
The Compaq NC7770 PCI-X Gigabit Server Adapter is the first in a new generation of networking solutions to combine Gigabit Ethernet speed with PCI-X bus technology. The NC7770 is a single port copper Gigabit server adapter that runs over Category 5 (or better) twisted-pair cabling. Along with all the advanced features that ProLiant customers have come to expect, the NC7770 includes support for Jumbo Frames, Wake on LAN (WOL), Dual Address Cycles (DAC), and Pre-Boot Execution environment (PXE).	
Fast Ethernet Server Adapters	174830-B21
NC3123 PCI, 10/100 WOL	
NC3134: Fast Ethernet NIC 64 PCI Dual Base 10/100	138603-B21
PCI Gigabit Server Adapters and Upgrade Modules	
NC7131 Gigabit Server Adapter PCI, 64/66, 10/100/1000-T	158575-B21
NC6136 Gigabit Server Adapter PCI, 64/66, 1000-SX	203539-B21
NC6132 1000 SX Upgrade Module	338456-B23
NC6133 1000 LX Upgrade Module	338456-B24
NC7132 10/100/1000-T Upgrade Module	153543-B21

Introduction

The NC7770 supports 10/100/1000Mbps Ethernet speeds as well as a PCI-X 64-bit/133MHz data path, backwards compatible with existing PCI bus architectures. This range of features enables Compaq customers to protect their current hardware investment while also future-proofing their ProLiant servers for the inevitable increase in networking throughput. Additionally, the NC7770 ships with support for PCI Hot Plug, Network Fault Tolerance, Load Balancing, Jumbo Frames, and various offload capabilities that improve performance. These improvements in speed and throughput come at a cost-effective price for environments using Category 5 (or better) twisted-pair cabling.

Performance

Gigabit Ethernet Throughput	Up to 1000Mbps Ethernet transfer rate delivers outstanding network performance that improves response time and removes bottlenecks across the entire network.
PCI-X Data Path	Compaq was an early champion of PCI-X bus technology and has played a key role in the development and industry adoption of the PCI-X specification. The NC7770 is Compaq's first server adapter to feature a PCI-X 64-bit/133MHz data path, which yields faster transmissions with lower CPU utilization.
Load Balancing	Transmit Load Balancing (TLB) and Switch-Assisted Load Balancing (SLB) are two advanced features used to build a bigger pipe for improved networking bandwidth. These port bonding techniques enable users to install up to eight NC7770 adapters in a ProLiant server and aggregate their throughput up to a maximum of 16Gigabits per second full-duplex transmissions.
Jumbo Frames	Jumbo Frames (also known as Extended Frames) offer a 9K byte Maximum Transmission Unit (MTU), which is six times the size of traditional Ethernet frames. Like all Compaq Gigabit server adapters, the NC7770 supports jumbo frames as a way to achieve higher throughput and better CPU utilization when deployed in a network infrastructure that supports them. Jumbo frames are particularly useful for database transfers and tape backups.
TCP Offloads and Interrupt Coalescing	The NC7770 features TCP Checksum Offloads as well as TCP Segmentation Offloads. Both reduce the load on the CPU for overall improved system response. Interrupt Coalescence is a feature that groups multiple packets and issues a single interrupt to the host. This process optimizes host efficiency, leaving the CPU available for other duties.

Overview

Scalability and Reliability

Tri-Speed Support

Because the NC7770 supports both 10Mbps Ethernet and 100Mbps Fast Ethernet in addition to Gigabit Ethernet, users are guaranteed end-to-end protocol support across their enterprise. Like all Compaq server adapters, the NC7770 adheres to open industry standards, insuring that it will work seamlessly with any network devices that also support IEEE standards.

PCI-X Support for Traditional PCI slots

PCI-X technology insures hardware investment protection by retaining backward compatibility with the standard PCI bus architecture at the device and driver level. When the NC7770 is used in a 64/100, 64/66, 64/33, or 32/33 IO slot, the performance is limited to the maximums of those conventional bus architectures.

Network Fault Tolerance (NFT)

Network Fault Tolerance, sometimes called "failover" or "NIC Redundancy," allows for the installation of multiple NC7770 server adapters so that the active device can be backed up by a redundant adapter to improve availability. Compaq's teaming utility also allows users to specify that when a failed adapter is fixed and replaced, the original adapter resumes its function as the primary network connection.

PCI Hot Plug

The NC7770 ships with PCI Hot Plug support, which enables it to be replaced or added to a PCI Hot Plug compatible server without powering down the system. This feature provides increased system availability and non-stop serviceability in business-critical computing environments.

Network Management

Auto-negotiation

The NC7770 automatically senses and configures itself to the speed of the device to which it is attached. It also automatically configures for half or full duplex, depending on the duplex mode of the switch, hub, or router at the other end of the cable.

Management Support

Like all Compaq server adapters, the NC7770 ships with drivers and agents that can be managed from all versions of Compaq Insight Manager, including the new Compaq Insight Manager 7, as well as using any management application that supports SNMP.

Server Integration

Compaq's SmartStart configuration utility includes setup support for the NC7770 so the adapter can be configured as part of the SmartStart configuration process. Compaq Insight Manager can recognize the NC7770 individually or in port-bonded teams, and can collect and report SNMP statistics on the adapter events. Integrated Management Log (IML) support is provided by the NC7770 for critical event logging on Compaq servers.

Configuration Utilities

Each NC7770 ships with a suite of OS-tailored configuration utilities that allow the user to run initial diagnostics and configure adapter teams for Network Fault Tolerance, Transmit Load Balancing, or Switch-Assisted Load Balancing (802.3ad static-mode configuration only) in the Windows 2000 and Windows NT operating systems.

LED Indicators

Bracket LED indicators show link integrity, network activity, and speed on each port for easy troubleshooting.

Technical Specifications

Compliance	IEEE 802.3i, 802.3u, 802.3x, 802.3ab, 802.3ad (static configuration mode only), 802.1p PCI-X 1.0 PCI 2.2 ACPI v1.1a		
General Specifications	Communications Processor	Broadcom 5701(h) 10/100/1000 Mbps, Half- and full-duplex	
	On-board memory	96KB	
	Data path	64-bit/133MHz, compatible with 64/100, 64/66, 64/33 and 32/33	
	Interrupt levels	INTA	
	Bus architecture	PCI-X bus-mastering, compatible with existing PCI bus architectures	
	Connector	RJ-45	
	Distance	Up to 328 feet/100 meters	
	Wiring	Category 5 or higher UTP	
	Dimensions (LxW)	6.6 x 2.5 in/16.5 x 6.4 cm	
	Power and Environmental Specifications	Operating	Temperature
Humidity			10% to 95% non-condensing
Non-operating		Temperature	-40° to 85°F/-40° to 185°C
		Humidity	-5% to 95%
Power requirement		2 A @ 5V max	
Emissions Standards		FCC Class B, VCCI Class B, BSMI Class A, CISPR 22 Class B, EN60950, EN 55022 Class B, EN55024, UL, Canada UL, CES-003 Class B	
Safety Compliant	CE Mark		
Operating System Support	Windows 2000 Windows NT 4.0 Linux, Red Hat, Caldera, and SuSE distributions Novell NetWare 4.x, 5.x, 6.x Server Caldera UnixWare 7 Caldera OpenUnix 8 Caldera OpenServer 5 MS-DOS Client for unattended installation		

Kit Contents	NC7770 PCI-X Gigabit Server Adapter CD containing Drivers, User Guide, and Installation and Diagnostic Utilities Quick Install Card Product Quality Statement Product Warranty Statement
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Warranty	<p>Maximum: The remaining warranty of the Compaq product in which it is installed (to a maximum three-year, limited warranty).</p> <p>Minimum: One year limited warranty.</p> <p>See Internet address http://www.compaq.com for overall information on Compaq Computer Corporation. For further information on Compaq products, contact Compaq Sales at 1-800-544-5255 or the Compaq Technical Support Center (post sales) at 1-800-652-6672. For customer support and information about Compaq and its products, call 1-800-OK-COMPAQ.</p>
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